



Asia-Pacific  
Economic Cooperation

# Women, COVID-19 and the Future of Work in APEC

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## KEY MESSAGES

- APEC economies are expecting severe economic repercussions from COVID-19, with disproportionate impact on women. This policy brief aims to capture some initial findings on the impact of the pandemic on women, recognizing the limitations of what is known at this time.
- COVID-19 is exacerbating existing social and economic inequities, making the Asia-Pacific Economic Cooperation (APEC) vision for inclusive growth and shared prosperity more critical, including for women's economic participation.
- Women workers and women-led micro, small and medium-sized enterprises (MSMEs) may bear the brunt of the economic downturn from COVID-19, as the sectors hardest hit by the pandemic are those where women are more likely to be working.
- Women-led MSMEs also tend to be smaller and are more likely to be informal, so they may be adversely affected by the economic fallout from COVID-19. Women's limited access to financing and capital compared to men's prior to the pandemic may be further impacted by additional constraints on liquidity.
- Increases in demands for unpaid care work may further widen gender gaps in the labor force if women's productivity declines or they opt to leave the labor force due to rising unpaid care responsibilities, as predicted. COVID-19 has shown that caretakers' work is essential.
- The pandemic may also accelerate the deployment of 4<sup>th</sup> Industrial Revolution (4IR) technologies, increasing the risk of job displacement of routine and manual jobs that employ high numbers of women across APEC economies. Reskilling and upskilling efforts are needed to equip women and other at-risk groups with marketable skills.
- Tech industries are booming in the COVID-19 environment, but women are underrepresented in the science, technology, engineering, and mathematics (STEM) fields. APEC can play a proactive role in addressing this situation through prioritizing efforts that support STEM education and mentoring, STEM training, skill-building, and access to STEM jobs for women and girls.
- With more people confined to their homes, gender-based violence has also increased, and APEC economies play a critical role in working to prevent and address gender-based violence - including harassment – at home, work, and online, while also ensuring that support services remain adequate.

## COVID-19 continues to jolt the world

Since the COVID-19 pandemic emerged, the impact of the crisis continues to reverberate across the world, affecting every domain, sector, and economy in direct and indirect ways. As of mid-December 2020, COVID-19 had infected more than 73 million people, and more than 1.6 million had died worldwide. The APEC region accounts for around

33 percent of global COVID-19 infections and 35 percent of global deaths.<sup>1</sup> The threats to public health and economic activity are unlikely to be mitigated until effective vaccines, therapeutic treatments, and diagnostics become available and widely accessible.

The sheer scale of the pandemic is translating into major impacts on social and economic structures.

For instance, a Cambridge study estimates that, in a best-case scenario, the global economy would lose \$3.3 trillion (USD) over five years, with the worst-case scenario being a loss of \$82.4 trillion (USD).<sup>2</sup>

In particular, the severity and scope of the economic slowdown are altering the landscape of the labor market. One Policy Support Unit (PSU) policy brief argues that the COVID-19 crisis will hasten trends in automation across the region as movement restrictions necessitate increased use of information and communication technology. Occupations that are easily “routinized,” not only in manufacturing sectors, but also in white-collar environments such as in banking and accounting, are at a higher risk of automation in response to the pandemic.<sup>3</sup>

APEC laid out its vision for women’s economic empowerment in the 2019 La Serena Roadmap for Women and Inclusive Growth. The Roadmap seeks to address the barriers to women’s economic empowerment towards an inclusive path that facilitates greater participation of women in the Asia-Pacific region. COVID-19 has exposed the magnitude of these barriers and could exacerbate them in many ways while also presenting an opportunity to change the course for women’s economic prosperity and inclusion.

This policy brief outlines the impact of COVID-19 on women in the economy, recommends immediate actions to mitigate the disproportionate impact of the pandemic on women, and proposes steps that APEC can take to address existing inequalities so that women can capitalize on opportunities emerging from the changing nature of work as COVID-19 ushers in new ways of doing business.

It is important to note that this policy brief focuses on women as a broad statistical group. Although data about sub-groups of women according to age, nationality, ethnicity, race, (dis)ability, sexuality and other characteristics are sparse, the theory of intersectionality suggests that women who are part of other groups that are also socially and economically marginalized are likely to be at even greater risk of suffering from the socioeconomic shocks like the COVID-19 pandemic.<sup>4</sup>

### **COVID-19 is exacerbating systemic barriers to women in the economy**

#### **A. Women workers and women-led MSMEs are disproportionately experiencing the COVID-19 economic downturn**

The pandemic is having a disproportionate impact on women’s work in many APEC economies.

Analysis of labor force surveys by the International Labor Organization (ILO) has found that globally, the decline in employment is generally greater for women than men. According to ILO, this trend prevails in most APEC economies included in the analyses, specifically Canada; Chile; Japan; Korea; Peru; the United States; and Viet Nam. In contrast, employment decline is higher for men in Mexico, and about the same for women and men in Australia.<sup>5</sup>

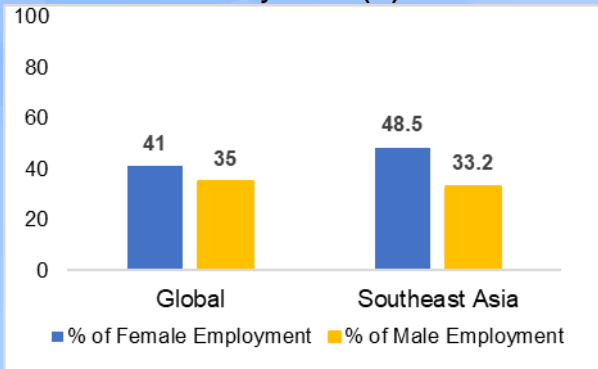
Similarly, women-led MSMEs may also be struggling disproportionately. A global study involving 85 economies conducted by the International Trade Center found that 64 percent of women-led firms self-reported that their businesses were adversely affected by the COVID-19 crisis compared to 52 percent of men-led firms.<sup>6</sup>

#### **The echoing effects of occupational segregation.**

One reason that women’s paid work has been affected more severely than men’s is because the sectors hardest hit by the pandemic employ a larger proportion of women workers. These sectors - accommodation and food services, wholesale and retail trade, manufacturing, and business and administrative activities - make up 41 percent of total female employment globally, compared to 35 percent of total male employment.<sup>7</sup> The gap is even greater among Southeast Asian economies, where the proportion of women employed in these hard-hit sectors is 48.5 percent compared to 33.2 percent for men.<sup>8</sup> Occupational segregation affects women’s businesses too; globally, women-led MSMEs are also concentrated in industries affected by the pandemic.<sup>9</sup>

Tourism, textiles and apparel, and domestic work are all examples of industries that suffered due to economic slowdowns during the pandemic, and where women are overrepresented, especially in low-level, part-time, and/or informal employment.<sup>10,11</sup> For example, an ILO report from June 2020 on the impact of COVID-19 on domestic workers estimates that nearly 80 percent of domestic workers in Asia and the Pacific region – most of whom are women – have experienced a reduction in the number of hours of work and earnings as well as job losses. The rate was even higher (87.5 percent) in South Asia. Even live-in domestic workers who may not have lost their jobs have been negatively impacted, including being forced to confine with their employers and perform added work, sometimes for less or no pay.<sup>12</sup>

**Figure 1. Employment distribution in sectors hardest hit by COVID (%)**



Source: ILO, "The COVID-19 Response: Getting Gender Equality Right for a Better Future for Women at Work," 11 May 2020.

### Exacerbating vulnerability of informal workers.

The economic downturn caused by the pandemic has been particularly devastating to low-wage workers and workers in the informal economy, which are also jobs where women are heavily concentrated.<sup>13</sup> Available data reported by some APEC economies show that in 2019, the proportion of women in informal employment in these economies ranged from 29 percent to as high as 75 percent.<sup>14</sup> Globally, informal businesses, which are companies that are not registered with domestic authorities, were 25 percent more likely to say that the pandemic is pushing them towards bankruptcy.<sup>15</sup> Informal workers and businesses are also among the most at-risk because they lack access to social protection, such as health benefits and unemployment insurance, to help them stay afloat amidst reduced economic activity due to the pandemic.<sup>16</sup> Nearly all APEC economies introduced social protection measures such as cash transfers and unemployment payments in response to the immediate job and income impacts of COVID-19,<sup>17</sup> but those in the informal sector were not necessarily able to access such subsidy support.

### B. COVID-19 is worsening the caregiving burden on women and directly impacting their employment situation

The pandemic is revealing the importance of the care economy to women's economic empowerment.

#### Increased hours spent on unpaid care work.

Lockdowns, social distancing measures and the risks of spreading the virus have led schools, childcare, and elder-care services to close or reduce their services. This has forced family members to spend more of their time doing unpaid work such as caring for children and sick or elderly relatives, which reduces their ability to do wage-

earning work. As of late November 2020, for example, nine APEC economies had either partial or complete school closures because of COVID-19, leaving parents responsible for not only supervising children but in many cases, also doing the added work of facilitating online schooling or educating them at home (Table 1).<sup>18</sup> Globally, women do three times more unpaid care and domestic work than men, on average, and the gap in child and elder-care services and education is disproportionately affecting women.<sup>19</sup> Although data specific to APEC economies are scarce, studies from the United States; the Philippines; and Thailand show that women are more likely to take on unpaid care and household tasks that have increased during the pandemic.<sup>20</sup>

**Table 1. School closures caused by COVID-19**

Economy	Closed	Partially open	Fully open
Australia			
Canada			
Chile			
China			
Hong Kong, China			
Indonesia			
Japan			
Korea			
Malaysia			
Mexico			
New Zealand			
Papua New Guinea			
Peru			
The Philippines			
Russia			
Singapore			
Chinese Taipei			
Thailand			
United States			
Viet Nam			

Source: UNESCO, <https://en.unesco.org/covid19/educationresponse> and government sources

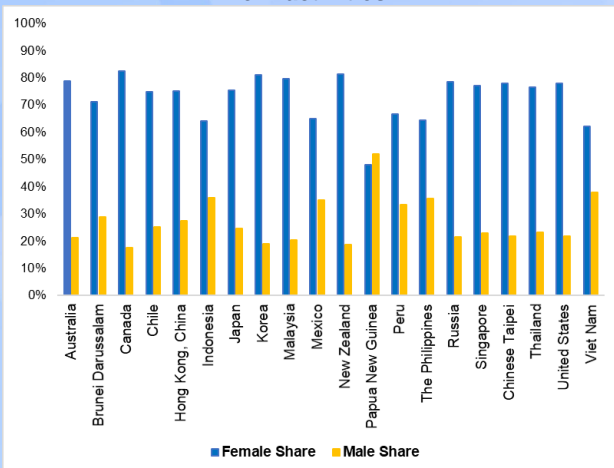
### Care work is essential work, yet still undervalued.

The pandemic has heightened the risks inherent in the care economy and other essential service jobs. Since women in APEC economies make up the majority of workers in healthcare, childcare, eldercare, and social services, their exposure to infection has increased.<sup>21</sup> Although these jobs continue to be in high demand – and are expected to grow – they are rarely well-paid occupations. Domestic workers may be subjected to long working hours and poor

working conditions, while also dealing with harassment and discrimination in some cases.<sup>22</sup>

In certain instances, nurses on the frontlines of the COVID-19 pandemic reported experiencing workplace violence and public abuse<sup>23</sup> and health workers at public testing stations reported mistreatment and unsafe conditions.<sup>24</sup> Still, as economies respond to the importance of maintaining a robust healthcare workforce to prepare against future outbreaks, jobs in the care economy are expected to grow.<sup>25</sup>

**Figure 2. Labor force in human health and social work activities**



Source: ILOStat. Data is from 2018 for Australia; Brunei Darussalam; Chile; Japan; Korea; Malaysia; Peru; the Philippines; Russia; Singapore; Chinese Taipei; Thailand; United States, and Viet Nam. Data is from 2015 for Indonesia and New Zealand; from 2016 for Canada and Hong Kong, China; and from 2010 for Papua New Guinea.

### C. Women workers and women-led MSMEs risk falling further behind in a rapidly changing, tech-driven economy

COVID-19 has forced many businesses to close operations, while also accelerating major technologically oriented shifts in the global economy. These transformations pose both risks and opportunities to women workers and women-owned firms.

**Technology use is increasing during the pandemic, but women are underrepresented in STEM fields.** Firms are using more innovative technologies that limit the risks of the spread of COVID-19, such as contactless delivery, online banking and shopping, and video conferencing.<sup>26</sup> Yet, across top tech firms worldwide, only one in three employees are women, and even fewer hold technical roles.<sup>27</sup> As more institutions are operating in online workspaces, the demand for cybersecurity services has also skyrocketed, but women represent only one in ten cybersecurity

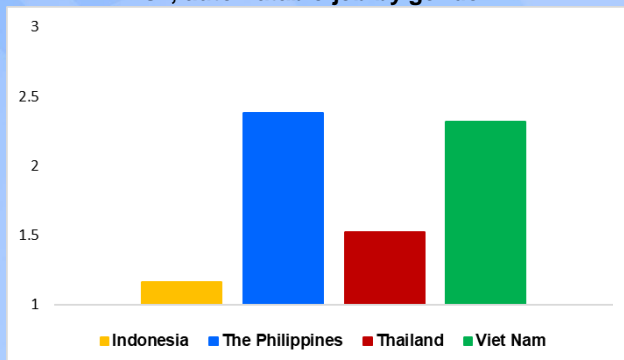
professionals in the Asia Pacific region.<sup>28</sup> Overall, women and girls are the “disadvantaged minority” in STEM education and the digital, high-tech economy, according to the 2019 APEC report, *Advancing Inclusion through Enhancing Women and Girls' Digital Literacy and Skills in the Context of Industry 4.0*.<sup>29</sup> In fact, the proportion of female graduates from selected tertiary education programs averaged around 26.6 in engineering, manufacturing and construction and 33.1 percent in sciences and technology.<sup>30</sup> Latest available data show that the proportion of female graduates in STEM programs have been pinned at below 35 percent in the last two decades.<sup>31</sup> Thus, women are not currently well positioned to capitalize on these growing market opportunities, whether as workers or as entrepreneurs.

### Gendered job displacement from automation.

The data predicting job displacement from automation are complex, but data from some APEC economies suggest that women are more likely than men to be employed in an occupation that is at high risk of automation. An ILO study on the future of jobs in five ASEAN members (four of which are APEC economies) found that women are at higher risk as they tend to hold jobs that are less skilled and easily automatable (Table 3).<sup>32</sup> In the new context of COVID-19, the 4IR is unfolding even more rapidly, deepening the risks of job displacement. Companies are shifting toward more automation and relying less on human labor to do manual and routine work during the pandemic.<sup>33</sup> This is happening in manufacturing industries such as garment production as well as consumer-facing industries like hospitality and retail. This was a rising trend prior to the COVID-19 pandemic, when the World Economic Forum reported that, for every new STEM job, four jobs could be lost for men whereas 20 jobs could be lost for women.<sup>34</sup>

At the same time, the education, health, and social work sectors are least likely to see job displacement from automation, and women dominate these sectors. Although artificial intelligence (AI) and robotics will be increasingly applied in these sectors, they will complement human jobs that rely on social skills like empathy and creativity, which are more difficult to replicate by a machine. In addition, aging populations across high-income economies are driving greater demand for more human workers as well as increased use for AI.<sup>35</sup>

**Figure 3. Relative probability of occupying a high-risk, automatable job by gender**



Note: A value of 1 means equal likelihood for women and men to be employed in an occupation with a high risk of automation. A value greater than 1 means the number of times that women are more likely than men to be employed in a position with a high risk of automation.

Source: Chang and Hunyh, 2016.

Overall, education is a key driver to prevent job loss resulting from automation, and women tend to have less access to education and skill-building opportunities.<sup>36</sup> It is thus imperative that APEC economies ensure that women workers in sectors and jobs that are at high-risk of automation have access to reskilling and upskilling opportunities.

**MSMEs need skills and capital to shift to e-commerce and other digital operations.** COVID-19 has intensified demands for e-commerce, compelling more businesses to build their capacities and systems to buy, sell, and compete in a digital marketplace. Yet women-owned MSMEs are at higher risks of incomplete or unsuccessful transitions to the e-commerce environment for several reasons. First, e-commerce requires digital literacy and skills, but gaps remain between women and men in digital knowledge, skills and experience.<sup>37</sup> Second, upgrades to e-commerce also require investments in systems, infrastructure, and cybersecurity. However, women's businesses often suffer from discrimination in access to credit and this, in turn, results in lack of access to financing or lower levels of capitalization. Thus, small businesses that are mostly women-owned become more reliant on self-financing.<sup>38</sup>

Moreover, women often face the double constraints of discrimination by creditors on the basis of gender and marital status. There are only nine APEC economies that have existing laws prohibiting discrimination by creditors based on gender in 2020, a slight improvement from seven APEC economies in 2000. Only seven APEC members have laws on non-discrimination in credit access based on marital status, which has remained unchanged since data were first tracked in 2015.<sup>39</sup>

Inadequate access to financing adds another layer of difficulty for women to build an online platform for their businesses to reach customers, especially given restrictions to in-person commerce imposed during the pandemic.

**New job opportunities are also emerging with the shift to 4IR technologies.** While the risks of job displacement are high, new job opportunities are also emerging with the adoption of automation, AI and other technologies. Newly automated factories, for example, may employ fewer workers doing routine assembly work, but they may require the workforce services of those who can manage, maintain and repair the equipment as well as operate relevant technological systems. In addition, AI is bringing about new job opportunities that some have termed “trainers, explainers, and sustainers,” who teach machines how to respond with empathy and compassion<sup>40</sup> or to mitigate gender, racial, ethnic and other forms of bias that are already showing up in AI algorithms.<sup>41</sup> Women, however, will benefit less from these new job opportunities if their ability to access STEM education, employment, and career advancement is low.

#### ***D. Increases in gender-based violence during the COVID-19 pandemic.***

**When home is not safe.** People need to feel safe to be able to engage fully in the economy. One of the most alarming effects of COVID-19 on women is the rise in gender-based violence (GBV) as shown by data from some economies. Although GBV is a widespread problem that existed prior to COVID-19, early data from some economies indicate that confinement measures imposed by the pandemic have correlated with escalated rates of certain forms of GBV, including intimate partner violence and family violence.<sup>42</sup> Along with higher incidences of intimate partner violence, there has also been a reduction in staff and resources affecting the provision of assistance and services to women victims, as noted by the APEC Economic Policy Report 2020.<sup>43</sup> Loss of income and financial stress, which have increased during the pandemic, make it even more difficult for victims and survivors to leave an abusive situation and find a safe place to live and work.

**Sexual harassment and abuse are happening online.** Technology is also enabling new forms of gender-based violence in the online sphere, including the workplace. Technology-facilitated gender-based violence is a threat to women and girls everywhere. According to a 2020 report by UN Women, surveys show that the percentage of women who have faced cyber-harassment ranges

between 10 to 40 percent, while some reports suggest that online violence is increasing during the pandemic.<sup>44</sup> Not only is it a violation of their freedom from violence, but it also disrupts productivity. The economic and social implications are an even greater concern now that an increasing amount of work and meetings are being conducted online because of the COVID-19 pandemic, and the workplace is expected to continue to rely on remote-enabled and virtual technologies well into the future.<sup>45</sup>

## Policy Recommendations

APEC is fully committed to fostering inclusive economic growth for women and individuals of all backgrounds. APEC economies can take proactive approaches to address the disproportionate impact of COVID-19 on women and address existing laws and policies that discriminate against women.

### A. *Immediate Interventions*

Recommendations for immediate actions include the following, to be considered by APEC economies, as appropriate:

**Strengthen social protection measures to bolster the care economy and support informal workers, as appropriate to local contexts.** As the economic impact of COVID-19 continues to reverberate throughout APEC economies, emergency social protection measures may need to be reviewed and strengthened to address specific needs.<sup>46 47</sup> This can be implemented in alignment with APEC's La Serena Roadmap for Women and Inclusive Growth and other initiatives aimed at promoting structural reform. Amid the adverse economic effect of the ongoing pandemic, social protection measures could include:

- extending social protection programs such as paid family leave to families who have to stop wage-earning work to care for family members during pandemic-related closures;
- subsidies to care centers to help them adjust safety measures and stay open during the pandemic;
- cash transfers that extend to informal workers;
- collecting and reporting data that is disaggregated by sex and other indicators of at-risk status about the use of relevant programs and services; and
- adopting measures encouraging men to participate in domestic unpaid work to share household and care responsibilities.

**Consider emergency funding for individuals experiencing gender-based violence.** APEC economies should act to protect at-risk populations that are experiencing increased intimate partner violence in a context where it is even more difficult to access support. Emergency funding for shelters, hotlines, and community support systems are essential to ensure that those experiencing violence receive mental and social support as well as secure housing.

**Introduce reskilling and upskilling training programs targeted at women workers.** Some APEC economies are implementing labor market upskilling and reskilling programs, often in partnership with private businesses, such as a \$227 million upskilling program in Indonesia.<sup>48</sup> APEC economies should take proactive steps to ensure that reskilling and upskilling programs are reaching women workers, especially those in the informal economy who have been displaced during the COVID-19 economic downturn, as well as those whose jobs are at risk of automation. Skill-building programs can focus on emerging tech and other STEM sectors, together with jobs that are at lower risk of automation in industries, such as education and healthcare, where a robust workforce is vital to weather the impacts of COVID-19. Reskilling and upskilling training programs can be bolstered with access to childcare support and subsidies; otherwise, women caring for children in their family are less likely to be able to participate.

**Support digitalization of women-owned MSMEs by boosting skills and access to financing.**

APEC economies are well placed to implement programs specifically targeted at women-owned MSMEs to provide digital skills training and financing to set up competitive and secure tech infrastructure and systems. These programs could be launched in partnership with the private sector, building on the work that APEC has done through the Women Connect Program to support entrepreneurs in utilizing digital tools to realize their business goals. For example, economies could work with women-led organizations that have proven experience in providing these kinds of training and assistance, such as the e-Entrepreneurs Women's Association in Malaysia.<sup>49</sup> Equally imperative is ensuring that women have equal access to financing to support and grow their business, including to enable them to set up online platforms for their business ventures. As noted above, improved access and affordability of childcare services can further increase the likelihood of women's participation and completion of such training programs.

**Expand opportunities for women-owned MSMEs to compete for government procurement opportunities.** Procurement policies that encourage women-owned businesses to compete for contracting and sub-contracting opportunities, especially women from disadvantaged groups like ethnic or racial minorities, indigenous groups, and women with disabilities may support APEC economies' efforts to pursue an inclusive growth model during and following the pandemic.

**Expand occupational safety and health measures to address violence and harassment.** Businesses are likely to need to adopt additional occupational safety and health measures in light of the COVID-19 pandemic. APEC economies can use this opportunity to raise the standard of workplace conditions to mitigate the effects of violence and online harassment in the workplace, including putting in place policies that provide protection to workers and penalties against online violators, and to ensure that these protections are supported by legislation, implemented, and enforced.

### **B. Long term efforts**

Recommendations for longer term interventions to address women's economic inclusion include the following:

**Explore hybrid finance models, such as a STEM Equity Fund, to stimulate increased public-private sector collaboration for addressing the gender inequities in STEM sectors.** For example, APEC economies could support the development of a cloud-based platform to collect information on and map STEM investment opportunities that would include a focus on gender digital divide issues. Such models could attract diverse financial investment to increase career opportunity, advancement, and leadership for women and girls. It would do this by enabling and strengthening programs that will elevate women's leadership in STEM fields, incentivizing girls and young women to pursue a career in STEM sectors, and supporting women-owned MSMEs to better utilize digital technology. Such hybrid finance models could give public and private sector donors that are inclined to invest in STEM equity an opportunity to track the impact of their investments.

**Implement long-term structural reform measures to address systemic barriers to women's economic inclusion.** The global nature of the COVID-19 pandemic presents an opportunity for APEC economies to take collective action toward implementing structural reforms that will strengthen social safety nets and widen access and

opportunities for shared prosperity. Policymakers have a responsibility to mitigate risks caused by structural economic imbalances and ensure that women and girls are not exposed to further economic and social inequities due to the pandemic. These efforts could complement ongoing initiatives to expand women's access to institutions, build credit, accrue property and work in the same sectors and jobs as men. It is also recommended that APEC economies adopt policies that recognize the essential role of childcare facilities, elderly care centers, and care workers in a functioning labor market that provides economic opportunity for women.

**Invest in digital infrastructure to increase access and create opportunities for women.** As APEC economies seek to expand their digital readiness in infrastructure, workforce development, cybersecurity, and other related areas, it is essential that they proactively create opportunities for women of diverse backgrounds to contribute to and lead decision-making processes in digital infrastructure design and implementation. APEC could also prioritize expansion of infrastructure in areas where women lag behind men in terms of access and use<sup>50</sup> as well as adopt policies and systems to mitigate and address technology-facilitated GBV, including cyber-based GBV. It is also important that economies assess the potential and realized impact of such initiatives on different demographic groups, including women and other groups that have been historically excluded from the digital economy.

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- <sup>32</sup> Chang, Jae-Hee, and Phu Hunyh, "[ASEAN in Transformation: The Future of Jobs at Risk of Automation](#)." ILO, 01 July 2016.
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<sup>34</sup> World Economic Forum, "[The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution](#)." January 2016.

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<sup>36</sup> Ibid.

<sup>37</sup> APEC Policy Partnership on Women and the Economy, op. cit.

<sup>38</sup> ILO, 11 May 2020, op. cit.

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<sup>45</sup> Bond, Shannon, "[A Must For Millions, Zoom Has A Dark Side — And An FBI Warning](#)." National Public Radio, 3 April 2020.

<sup>46</sup> ILO, 11 May 2020, op. cit.

<sup>47</sup> Gentilini, Ugo, Mohamed Almenfi, Pamela Dale, Ana Veronica Lopez, Ingrid Veronica Mujica, Rodrigo Quintana, and Usama Zafar, op. cit. A few APEC economies included childcare subsidies to parents as part of their social protection measures, such as Japan, Russia, and Korea, but the scale of the impact is not clear.

<sup>48</sup> Park, Cyn-Young, and Ancilla Marie Inocencio, op. cit.

<sup>49</sup> <https://ewamalaysia.my/wp/>

<sup>50</sup> Le Houérou, Philippe, "[4 Key Trends on How COVID Has Impacted Women in Business](#)." World Economic Forum, 27 July 2020.

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